

FIGURE 1A

FIGURE 1B

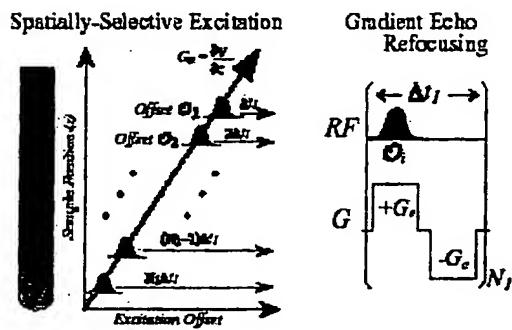


FIGURE 2A

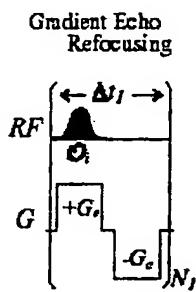


FIGURE 2B

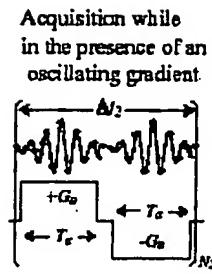


FIGURE 3A

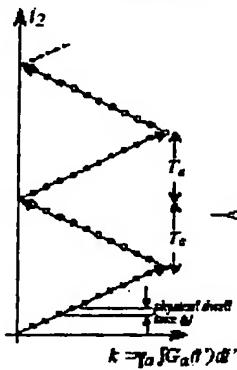
Positioning of data points in the $(k\psi_I, t_2)$ -space

FIGURE 3B

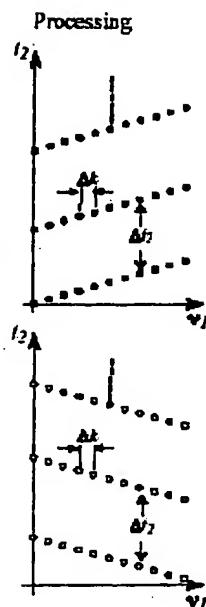


FIGURE 3C

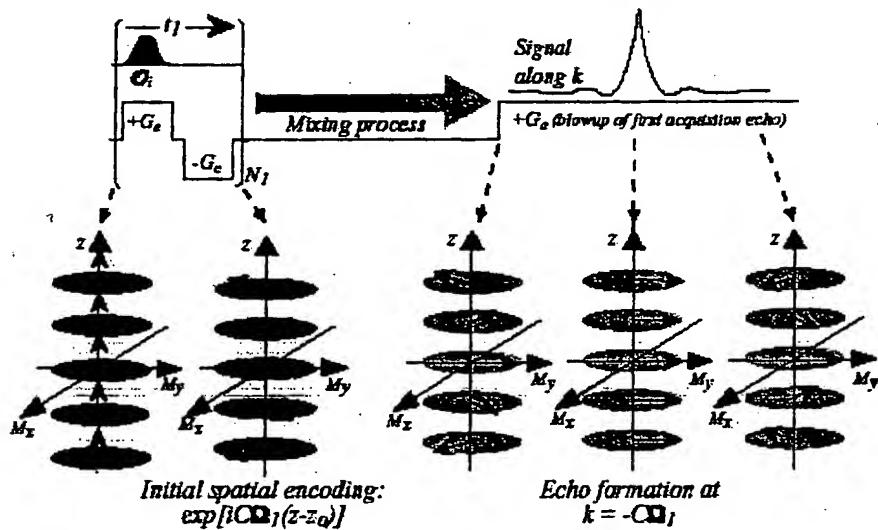
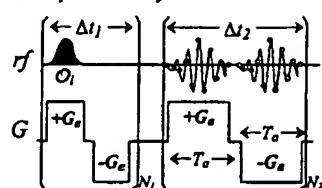
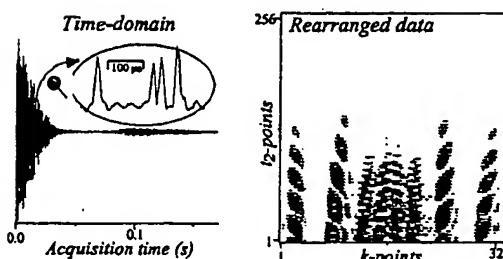
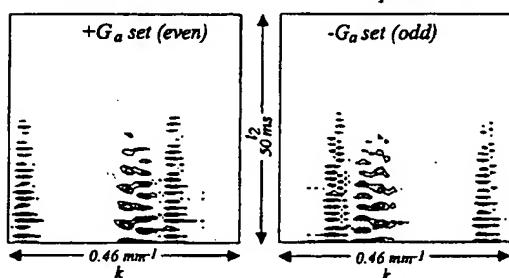
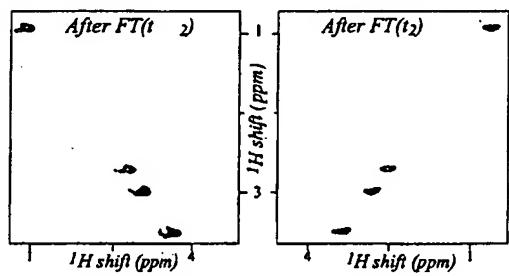


FIGURE 4

Pulse sequence assayed**FIGURE 5A****FIGURE 5B****FIGURE 5C****FIGURE 5D****FIGURE 5E****FIGURE 5F****FIGURE 5G**

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FIGURE 6A

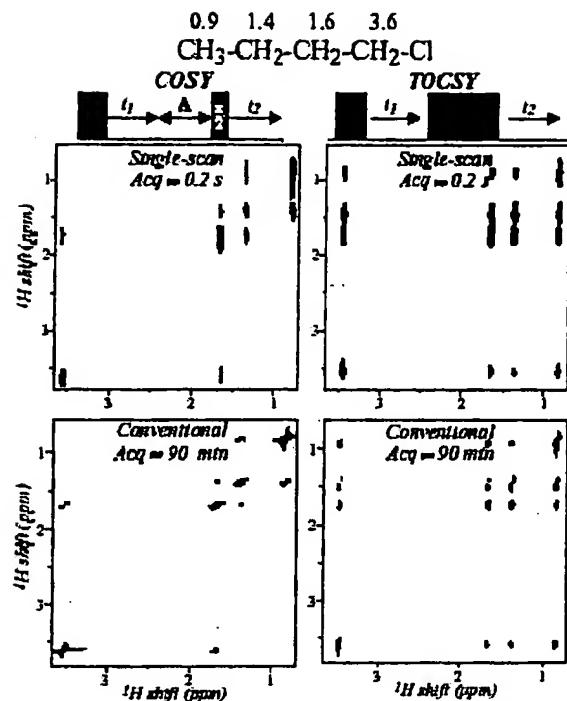


FIGURE 6B

FIGURE 6C

FIGURE 6D

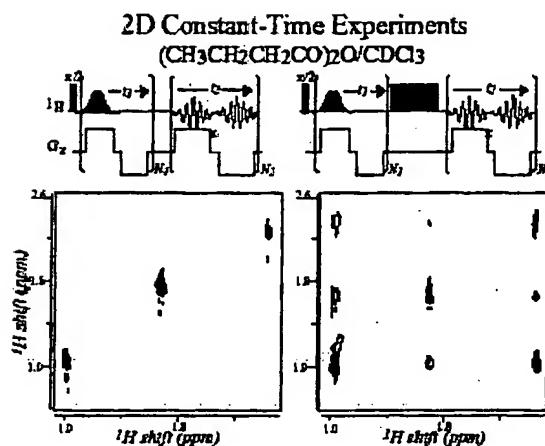
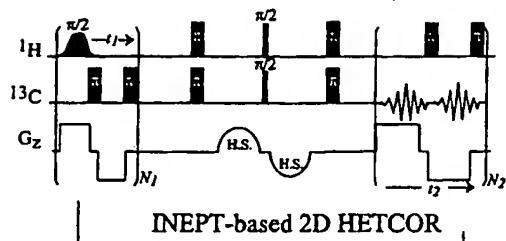


FIGURE 8A

FIGURE 8B

FIGURE 7A

INEPT-based 2D HETCOR

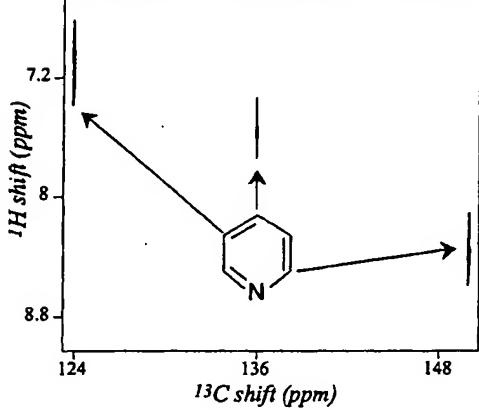
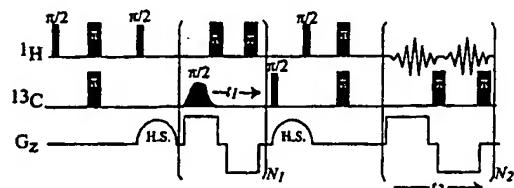
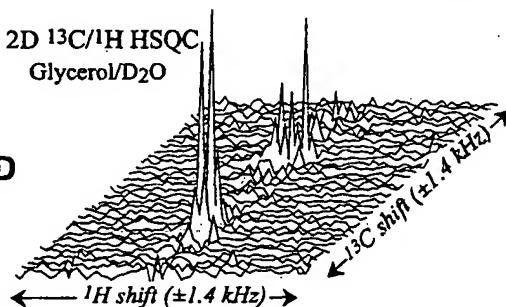
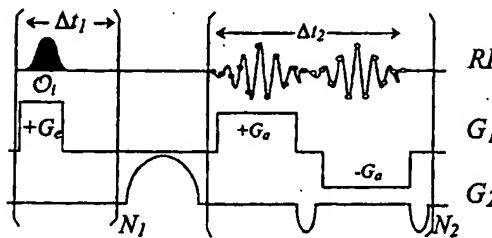
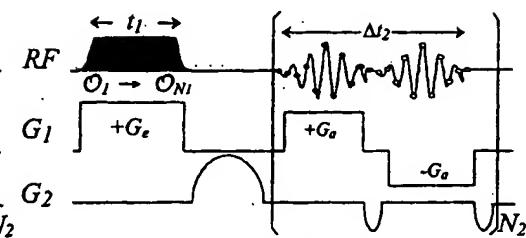
FIGURE 7B**FIGURE 7C**2D $^{13}\text{C}/^1\text{H}$ HSQC
Glycerol/D₂O**FIGURE 7D**

FIGURE 9A

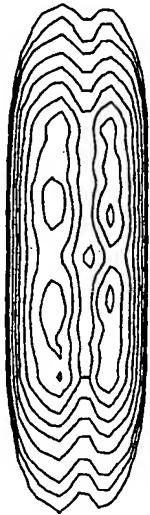
Spatial encoding based on discrete excitation pulses

**FIGURE 9B**

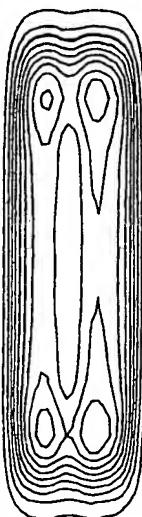
Spatial encoding based on a single chirp excitation pulse

**H₂O phantom imaged**

Single-Scan 2D Image

**FIGURE 9C**

Single-Scan 2D Image

**FIGURE 9E****FIGURE 9D**

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FIGURE 10

Spatially-Localized 2D NMR Spectroscopy in a Single Scan
Total Data Acquisition Time: 106 ms

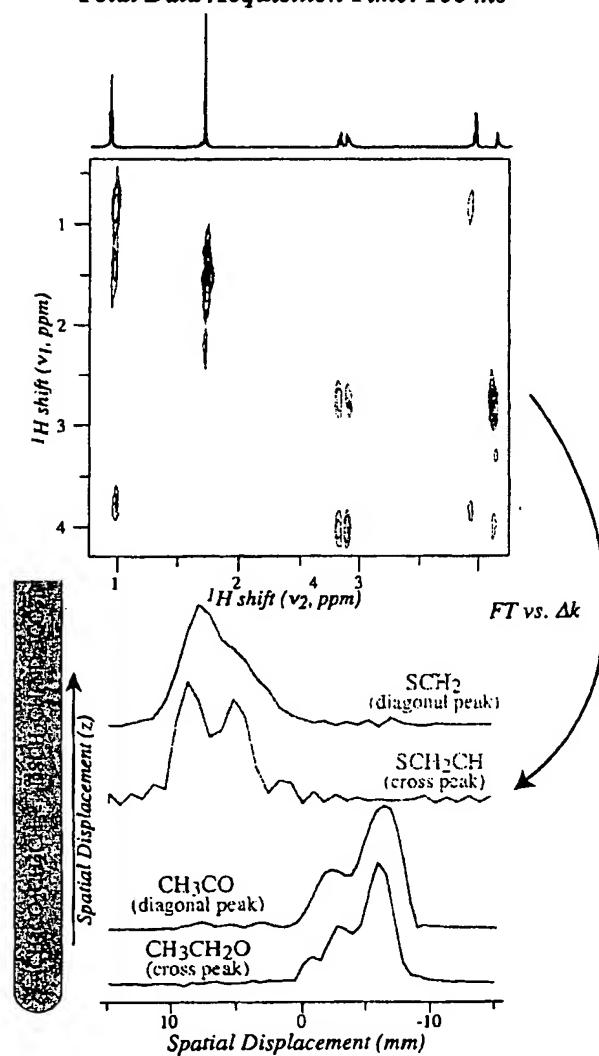


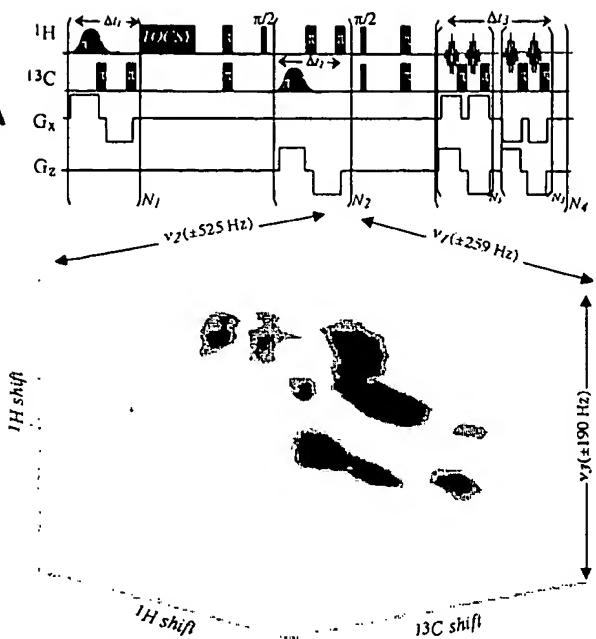
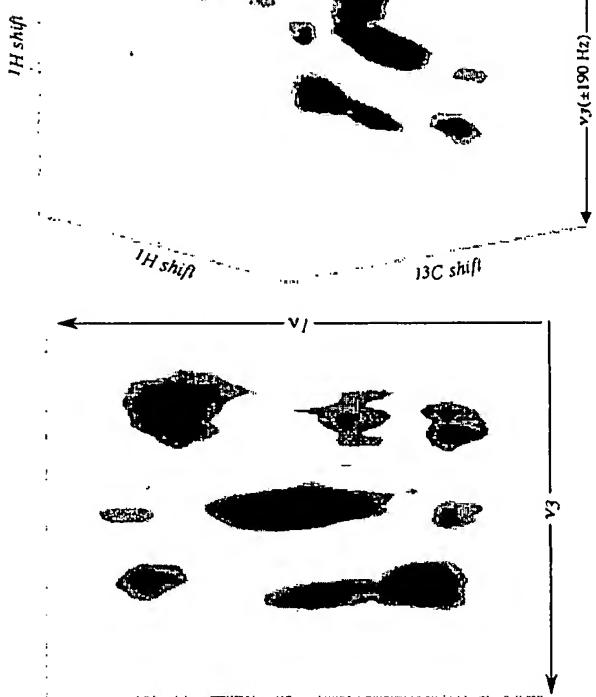
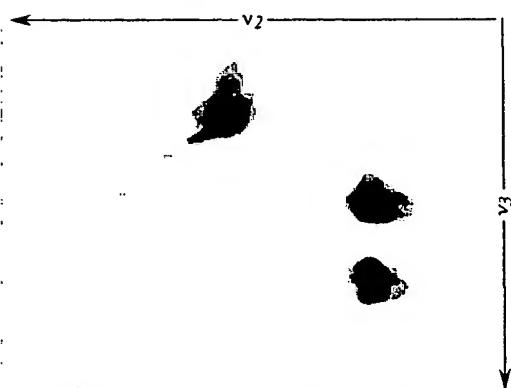
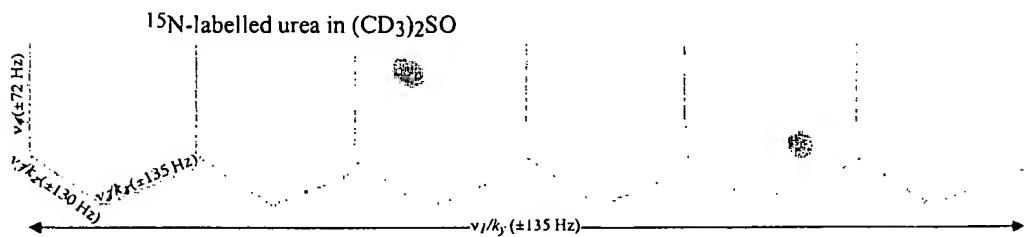
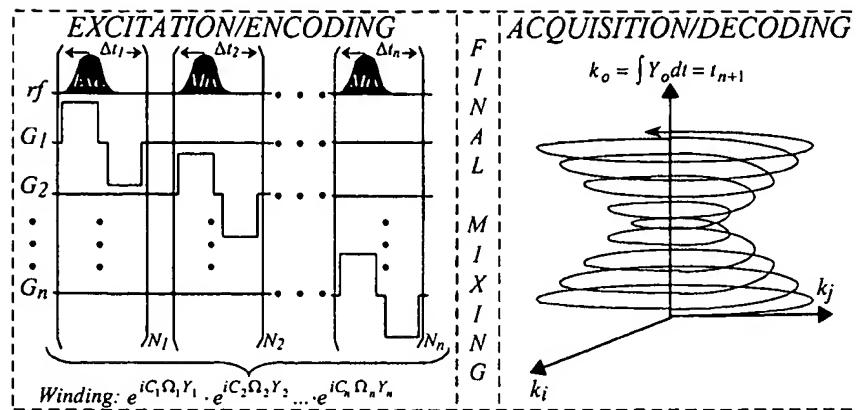
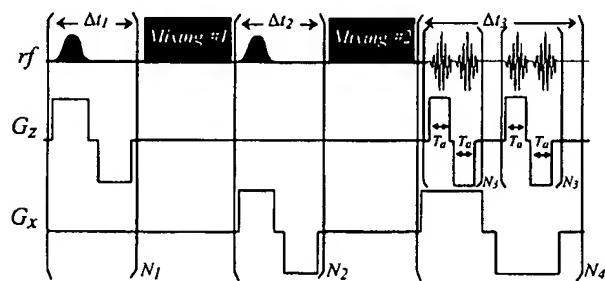
FIGURE 12A**FIGURE 12B****FIGURE 12C****FIGURE 12D**

FIGURE 13A**FIGURE 13B****FIGURE 11**

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FIGURE 14A

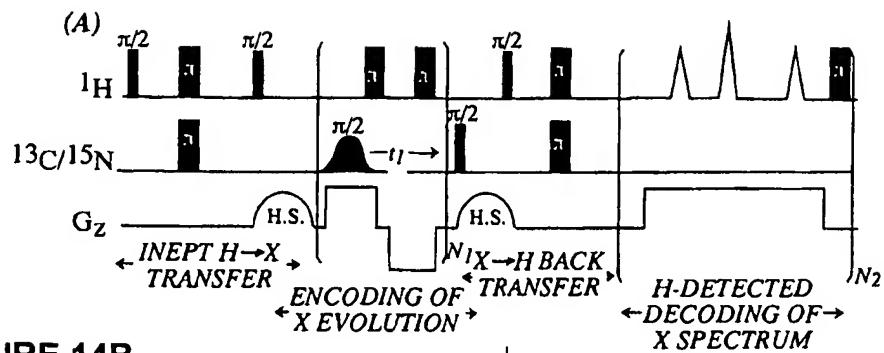


FIGURE 14B

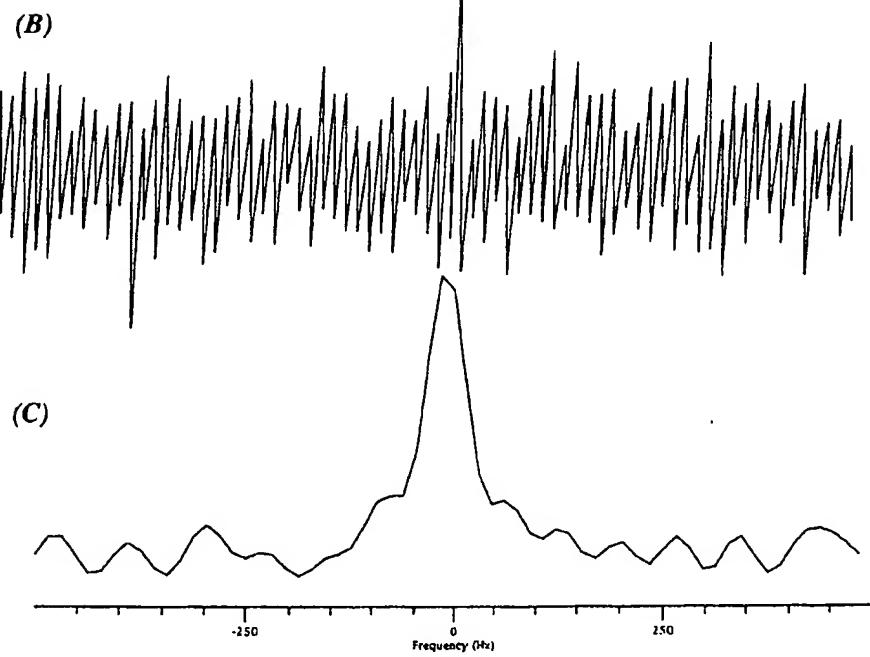
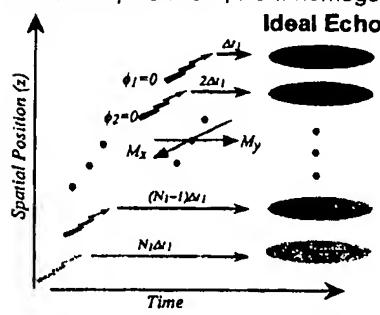


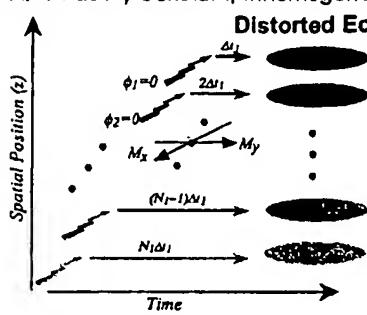
FIGURE 14C

FIGURE 15A

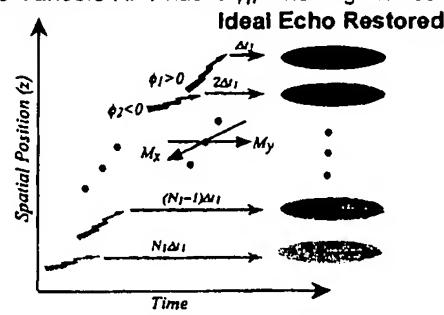
(A) Normal Excitation with:
RF Phase ϕ Constant; No Inhomogeneity

**FIGURE 15B**

(B) Normal Excitation with:
RF Phase ϕ Constant; Inhomogeneities

**FIGURE 15C**

(C) Tailored Excitation with:
Inhomogeneities Variable RF Phases ϕ_i ; Inhomogeneities



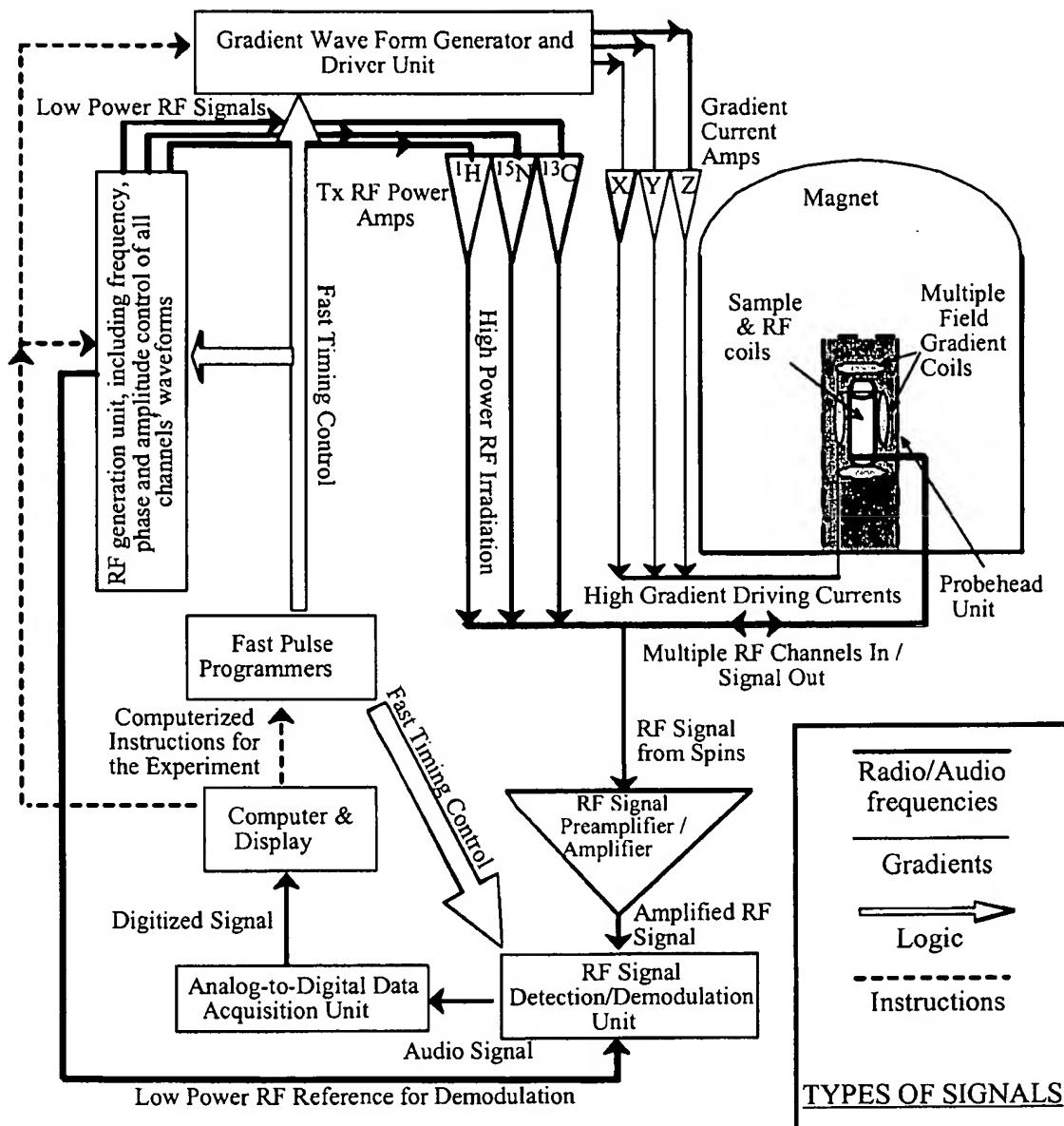


FIGURE 16

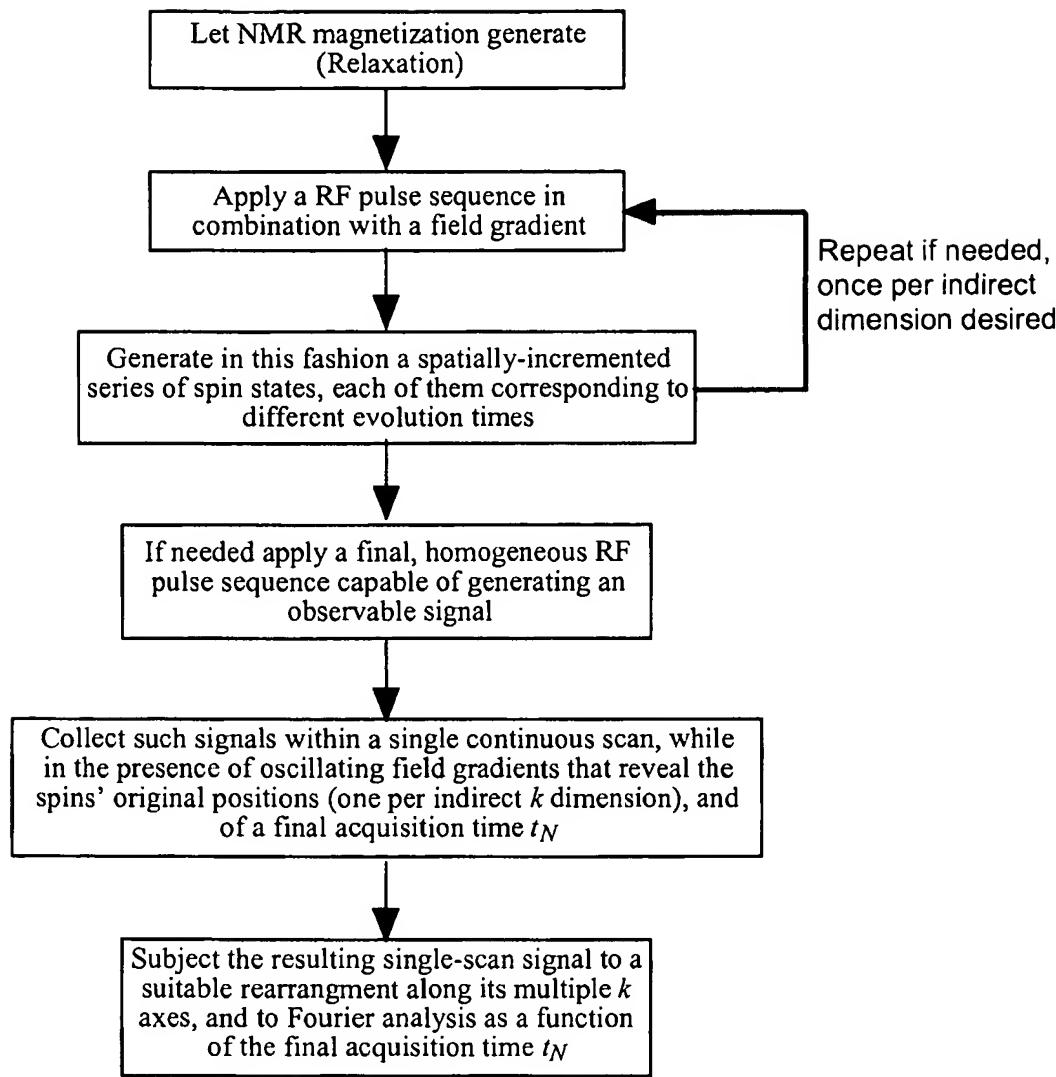


FIGURE 17